Online Gaming as Sociable Media

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Online gaming as sociable media

Le jeu en ligne, une forme de réseau social

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Résumés

English Français
Over much of the world, contemporary communicative practices are mediated by a wide range of digital technologies that support speech, image, video, and of course textual literacies. In dialectic tension with the rapid growth in digital information and communication media, Internet information and communication technologies have amplified conventional communicative practices in terms of breadth, impact and speed and have also enabled the emergence of new communicative, cultural and cognitive practices. These practices form dynamic cultures-of-use – that is, communication tools and the human activities they mediate co-evolve (Thorne, 2003). This article begins with a review of contradictory appraisals of digital media. This is followed by a discussion of the social and semiotic contexts comprising the widely played massively multiplayer online game *World of Warcraft*, with a view toward better understanding its usefulness as a setting for language use and learning. This game environment is explored using three forms of evidence, (1) unsolicited reports from players appearing in player-to-player online discussion forums, (2) elicited descriptions of players' experience provided through questionnaires distributed to Dutch and American gamers, and (3) a formal assessment of the linguistic complexity of high frequency game-presented and player-generated texts. By way of conclusion, we elaborate on the necessity of an "open source epistemology" (Lankshear & Knobel, 2006) and a critical language awareness approach to developing and acknowledging a diversity of communicative practices, all of which are aimed at expanding the goals, and outcomes, of instructed L2 education.

Presque partout dans le monde, des pratiques de communication modernes sont médiées par une large gamme de technologies numériques qui favorisent l'emploi de la langue parlée, de l'image, de la vidéo, et bien sûr, des littératies textuelles. Dans une tension dialectique avec la croissance rapide des médias d'information et de communication numériques, les technologies de l'information et de la communication ont amplifié les pratiques habituelles de communication quant à leur portée, leur impact et leur rapidité, et ont également rendue possible l'émergence de nouvelles pratiques communicatives, culturelles et cognitives. Ces pratiques créent des cultures d'usage dynamiques : on observe une évolution parallèle des outils de communication et des activités humaines qu'ils suscitent (Thorne, 2003). Notre article présente d'abord un panorama des vertus contradictoires que l'on attribue aux médias numériques. Suit une discussion des contextes sociaux et sémiotiques observés pour *World of Warcraft*, un jeu en ligne massivement multijoueurs très populaire, en vue d'une meilleure compréhension de son potentiel comme environnement pour l'usage et l'apprentissage d'une langue. L'environnement de ce jeu est exploré à partir de trois types de données : (1) les commentaires spontanés de joueurs qui

apparaissent dans des forums de discussion en ligne entre joueurs, (2) une sélection de descriptions des expériences de joueurs sur la base de questionnaires distribués à des joueurs néerlandais et américains, et (3) une évaluation formelle de la complexité linguistique de textes fréquemment présentés par le jeu et rédigés par des joueurs. En guise de conclusion nous développons un plaidoyer pour la nécessité d'élaborer une "épistémologie du libre partage des données" (Lankshear & Knobel, 2006) et une approche de prise de conscience linguistique critique permettant de développer et de reconnaître une variété de pratiques communicatives ayant toutes pour but ultime d'élargir les objectifs et les résultats de la formation institutionnelle en L2.

Entrées d'index

Mots-clés : jeux en ligne, réseaux sociaux, complexité linguistique
Keywords : online games, social media, linguistic complexity
Thématique : social media

Texte intégral

1. Introduction

1 What can be described, if somewhat anachronistically as we enter an increasingly post-computer era, as computer-assisted language learning (CALL), has an approximately fifty-year history as a sub-field of second language development (SLD) and applied linguistics research (for discussions, see Bax, 2003; Chapelle, 2009; Hubbard, 2009). The preponderance of CALL research has focused on in-class or instructionally related uses of technology and many useful and consistently corroborated findings have emerged from this literature (for recent reviews, see Chun, 2008; Kern, Ware & Warschauer, 2004; Thorne, 2008a; Thorne & Payne, 2005). Expanding out from earlier and more institutionally located investigations, the present article explores the potential for language learning in freely chosen "sociable media" contexts, which, following Donath (2004), we define simply as tools and mediated environments that are specifically engineered to support rich and varied communicative dynamics and the establishment and maintenance of interpersonal connection.

2 The discussion begins with a general and demographic contextualization of sociable media and their often polarized academic and popular press reception. This is followed by the presentation of a distributed and ecological systems approach to human action and language development that provides a rationale for carefully assessing the social-interactional and linguistic qualities of digitally mediated environments. We then focus on a specific and widely played massively multiplayer online game called *World of Warcraft* (produced by Blizzard Entertainment), including discussion of the attendant discourses that have emerged in related online communities. Discussion of the potential efficacy of online gaming worlds for language learning will be informed by Internet-available and unsolicited reports, by responses to a bi-national questionnaire of active players in two countries – the Netherlands and the United States, and through analyses of the linguistic complexity of high frequency game-generated and player produced texts associated with this game. The article will conclude with a general discussion of the resources and potential constraints of participation in gaming environments as these experiences relate to foreign language development.

2. Mediated life activity and its valorisation and condemnation

2.1. Demographics of sociable media

3 Assessing the language developmental value of participation in digital environments is no easy task. The sheer number of what might now be termed conventional Internet-mediated tools, such as email, threaded discussion fora and message boards, synchronous chat and video conferencing, textual virtual worlds, and blogging (to present only a selective list) have been joined by highly popular social and community media environments such as *Twitter, Facebook* and its many language and region specific siblings (such as *Netlog* and *Hyves* in the Low Countries, *V Kontakte* in Russia, *Orkut* in Brazil, *Qzone* in China), and *Google*'s continual efforts to create a competitive social media platform (*Google Wave* failed, was replaced by *Buzz*, which itself has been replaced by *Google+ Circles*). The most globally distributed of these social media environments – *Facebook* – is impressive in terms of its user populations. In a recent press release (December, 2011), *Facebook* reports 845 million monthly active users, 80% of which are outside of the US and Canada, with the average user having connections to 130 "friends" (*Facebook Newsroom*). Given that the global Internet user population is estimated to be more than 2.2 billion (as of December, 2011; see internetworldstats.com), these demographical statistics are noteworthy, especially since many omnipresent as well as casual users of social media participate of their own volition, arguably because the interactions, sharing, and exchanges that occur there serve important social-relational, psychological and informational needs.

4 Online gaming, which we include as a particular case of sociable media, is also immensely popular and arguably constitutes one of the most complex forms of media-based entertainment. In a 2005 publication, the telecommunications researcher Edward Castronova estimated that synthetic worlds (his term for online virtual spaces) were appearing at a rate of Moore's Law, or doubling in volume every two years, and that minimally, the global population across all synthetic worlds was 10 million players averaging 20-30 hours of play time per week. Only six years later, in 2011, the single massively multiplayer game *World of Warcraft*, the most popular online game of its genre at the time of this writing, has had an estimated peak population of approximately 12-13 million active players distributed among servers supporting game play in Chinese, English, French, German, Korean, Russian, Spanish and other languages. Additionally, non-recreational digital game-based environments have emerged that offer scenario-based management and military training, interactive kiosks for children in museums, and "serious" educational games for use in a wide range of academic subjects. This growing interest in digital games has been accompanied by a rapid proliferation in the types and genres of games being developed (see Purushotma *et al.*, 2009; Sykes, Reinhardt & Thorne, 2010).

2.2. Polarized assessments of new media as a rationale for empirical investigation

5 Immense user populations and high levels of engagement, in and of themselves, answer few questions about linguistic and interactional affordances that new media might provide to language learners. Further, there is considerable public and academic debate regarding the virtues and perils of new media environments. A number of university and industry researchers have argued that some forms of new media, particularly multiplayer genres of online gaming, present rich environments for the learning of specialized literacies, scientific reasoning and high-level problem solving (e.g., Gee, 2003, 2007; Grimes & Feenberg, 2009; Nardi & Kallinikos, 2010; Steinkuehler & Duncan, 2008), as well as providing dynamic opportunities for the development of leadership abilities (Thomas & Brown, 2009). Recent research has also examined relationships between children's use of diverse information technologies as they relate to creativity. Among the four types of information technology that were considered, (1) computer use, (2) general Internet use, (3) cell phone use, and (4) video

game playing, the results showed that only video game playing was correlated with greater creativity (Jackson *et al.*, in press).

6 Many commentators and researchers express more negative assessments of the social and/or linguistic qualities of Internet environments and processes. In regard to social media, Sherry Turkle, who lauded the fluidity of meaningful identity construction opportunities in Internet environments in the mid-1990s (e.g., Turkle, 1995), has more recently critiqued social media for its displacement of face-to-face and voice contact. In her new work, Turkle (2011) argues that immersion in a deluge of social media messages and "relationships" may result in alienation and a sense of increased isolation for some users of these media (though see Steinfield, *et al.*, 2008, for a longitudinal study that suggests an opposite effect).

7 One of the more publicized critiques of new media information and communication practices appears in the work of Nicholas Carr (e.g., 2010). Carr draws upon personal experience and select cognitive neuroscience research to present a careful and generally balanced, and certainly erudite, assessment of Internet use and its potential effects on human attention, decision-making and thinking. In one of his more incendiary comments, however, Carr states the following.

> The Net's [Internet's] cacophony of stimuli short-circuits both conscious and unconscious thought, preventing our minds from thinking either deeply or creatively. Our brains turn into simple signal-processing units, quickly shepherding information into consciousness and then back out again (Carr, 2010: 119).

8 A few pages later, Carr (2010: 123) juxtaposes Internet use with the reading of books as follows.

> By allowing us to filter out distractions, to quiet the problem-solving functions of the frontal lobes, deep reading becomes a form of deep thinking. The mind of the experienced book reader is a calm mind, not a buzzing one.

9 Carr makes an important critique, but we suggest that it pertains primarily to specific forms of Internet-mediated activity – he names *Google* searches and social media at various points in his text – that do contrast radically with conventional literacy practices such as extended attention to very long strings of text (i.e., literature, expository prose and the like).

10 Much more could be said about the aforementioned sociable media debates and potentially the perceived threat presented by "open" online epistemologies vis-à-vis their high prestige traditional literacy counterparts (i.e., Lankshear & Knobel, 2006). We suggest, however, that opinions and generalizations are unnecessary since the complexity of online activity is an issue that can be investigated empirically, case by case and environment by environment. By way of analogy, in response to the public stigmatization of African American Vernacular English (AAVE), the sociolinguist William Labov (1972) showed that AAVE was as rule governed and capable of nuance as any other variety of English, demonstrating that the issue was one of social stigma rather than a lack of linguistic complexity or systematicity. To pejoratively label AAVE on ideological grounds, or because of its divergence from canonical norms of prestige varieties of English, can be seen as a form of symbolic violence (in the sense of Bourdieu, 1991) rooted in the imposition of an epistemologically conservative selection bias. We return, then, to the point that the evaluation of new media for purposes of language learning is fundamentally an empirical question, and one that can be addressed from multiple perspectives.

3. Theoretical framing

3.1. Human development and language learning

11 Language acquisition is a contentious field comprised of diverse and competing frameworks, but virtually all approaches acknowledge the importance of the quality of the linguistic environment and opportunities for engagement as primary determiners of developmental outcomes.

12 To begin with a few preliminary theoretical observations, humans can be seen as open systems, with the implication that development arises as a function of interaction within historically formed, and dynamically changing, social, symbolic and material ecologies. When viewed this way, individual learning of whatever kind cannot be clearly separated from life experience. Rather, life activity and development form an "ensemble" process that is enacted along a brain-body-world continuum (e.g., Spivey, 2008). This open system principle includes a number of entailments, one of which is a focus on mediation – that objects and other people in the environment co-produce action and thinking in unison with individual human agents. This perspective is particularly relevant to assessing technology-mediated communicative and cognitive activity since the mediational means at hand – a computationally enabled gaming environment for example, potentially transforms the morphology of human action in ways that affect developmental processes and outcomes.

13 In non-technology related research, the implications of differences in developmental outcomes as a function of differing exposure to social and linguistic environments is starkly illustrated in a recent report by the Educational Testing Service (Barton & Coley, 2009), which states that at three years of age, American children from higher socioeconomic brackets have a vocabulary twice as large as those growing up in families on welfare. Similar research has shown that variations in the quality and quantity of language use in the home (Hart & Risley, 1995) and the presence or absence of literacy practices in particular communities (Luria, 1976; Scribner & Cole, 1981) have profound effects on both cognitive and linguistic development. Such research underscores the importance of empirical investigation into the linguistic and social conditions comprising emerging media environments in order to better understand their potential use-value as settings for language development.

14 An additional dimension to learning that is often salient in dialogically rich digital environments is that cognition, action and communication are inherently distributed across individuals, artifacts, environments and time periods (Cowley, 2009; Lemke, 2000; Wertsch, 2002). In relation to cognition and also communication, it should be noted that the principle of distribution is not meant to suggest symmetry or equal division, but rather serves as a reminder that thinking is not "brain bound" (Clark, 2008: xxvii, in Cowley & Steffensen, 2010). Rather, the insight is that cognitive density can shift from brains to bodies and to a range of physical and representational media in the flow of activity. In this way, learning is also distributed in the sense that a cognitive event is co-created by agents working with culturally shaped tools in digital environments (Thorne, 2003; Zheng *et al.*, 2009). This idea has been expressed within the second language development literature as the "inseparability principle" – that cognition/action and the social-material world share an ecology (Atkinson, 2010; see also van Lier, 2004). Phrased in a more philosophical way, Shotter (2003: 10) reminds us that "we live in surroundings that are also living", an observation that seems particularly applicable to the rapid and shifting nature of life activity in and through sociable media.

15 In research that is more closely focused on language acquisition, usage-based investigations (e.g., Goldberg, 2006; Tomasello, 2003) have underscored the importance of the quality of the social and linguistic environment as it relates to developmental trajectories. Characteristics such as input frequencies, linguistic complexity and language-mediated opportunities for joint attention and meaningful engagement are understood as foundational to language learning. As Tomasello (2000: 237-8) has described it, "all linguistic knowledge (...) derives in the first instance from the comprehension and production of specific utterances on specific occasions of use", where each "occasion of use" is situated in a particular cultural-material context.

3.2. Overview of research

16 A usage-based and ecological approach to language development emphasizes the importance of social and linguistic environments as primary catalysts for language development. In the sections that follow, we explore the experiential and cultural-semiotic contexts comprising the online gaming environment *World of Warcraft*, with a view toward its usefulness as a setting for language exposure, use and learning. This research is driven by the following two questions: (1) How do gamers report their play experience, and specifically their language use and learning experiences, in the massively multiplayer game *World of Warcraft*? (2) What is the nature of the linguistic environment that *WoW* players are exposed to? We address these questions and develop our analysis using three forms of evidence, (1) existing research and unsolicited reports from players appearing in player-to-player online discussion forums, (2) elicited descriptions of players' experience provided through questionnaires distributed to, and interviews with, Dutch and American gamers, and (3) an assessment of the linguistic complexity of high frequency game-presented and player-generated texts.

4. Massively multiplayer online gaming: A case of sociable media

4.1. Introduction

17 The design of games as settings for simulation, problem solving and investigative approaches to learning is contributing to a shift away from educational models based on information delivery and aligns with theories of human development that emphasize designed experiences, the negotiation of event-driven scenarios, and complex forms of collaboration (Squire, 2008). With respect to L2 learning, however, there are many unanswered questions regarding the quality and complexity of these linguistic environments, especially those associated with "non-educational" off-the-shelf recreational games. The research and discussion comprising the remainder of this article investigates the multiple and interlocking discourses and communicative dynamics that constitute routine play in massively multiplayer online games (hereafter MMOs), with particular attention to the aforementioned and most widely played game of this genre, *World of Warcraft*.

4.2. Overview of an MMO: *World of Warcraft*

18 *World of Warcraft* (hereafter *WoW*) is a commercially designed, avatar-based, persistent virtual world within which thousands of players simultaneously interact, collaborate and compete. Game play is guided by goal-oriented tasks (called "quests") that increase in difficulty as players progress. Players advance their characters and improve their skills and abilities by completing quests, collecting and making items and resources, and buying and selling goods and services in the in-world market place (which is linked to global capital markets).

19 Game play involves controlling a digital avatar and requires navigation of challenging landscapes, hypothesis testing and strategy development, and research into the consequences of subtle choices regarding character development (Nardi, Ly & Harris, 2007). For most participants, hundreds of hours of playtime are required to access advanced levels of game content. There is considerable repetition in the types of challenges presented, but there is also a continual complexification of scenarios and a concomitant expansion of tools and strategies that support continued progress. As Gee (2003, 2007) has argued, games are designed to provide developmentally productive

processes that bring together pleasure and learning through a focus on difficult and engaging goal-directed activity.

20 The default communication mode during online game play is synchronous text-based interactive written discourse of the sort common to other "chat" style tools, but voice communication is also available and is widely used by many players. Like the textual MUD (multi-user domain) and MOO (mud, object oriented) environments that preceded them, MMOs typically provide multiple synchronous text channels (e.g., channels for general communication, trade and commerce related activity, group and guild specific communication), as well as a channel for communication with co-present individuals, a "whisper" channel for one-to-one communication anywhere within the virtual world, a "mail" style tool for asynchronous communication and, increasingly, options for multi-party voice communication. MMOs also provide channels for *ad hoc* groups interacting together and for communication within structured social formations called guilds. Socializing with friends, spontaneous collaborations of convenience, and organized play in small and large groups form the mainstay of online gaming activity, especially at more advanced levels of play.

5. Research and unsolicited reports on L2 learning in *WoW*

5.1. Case study of intercultural communication in *WoW*

21 One of the earliest empirical cases examining multilingual communication occurring in *WoW* described an interaction between a speaker of English living in the US and a speaker of Russian living in the Ukraine (Thorne, 2008b). The two were playing near to one another when the Ukrainian communicated the following text message: "*ti russkij slychajno?*" (are you Russian by any chance?*)*. The American replied with a question mark and then asked, "what language was that?". This initiated 140 turns of dialogue that began with information exchange regarding spatial location and mutual interests in gaming and popular culture.

22 Early in the interaction, the American simultaneously began an instant messaging conversation with a hometown friend who had been raised in the Ukraine to ask for Russian language phrases he might use with his new found Russian speaking gaming partner. At various points in the roughly 30 minutes that the two played together, the American would post into the in-game chat channel Russian language utterances he had received via instant messenger, some of which were humorously vulgar. The Russian speaker reacted with good-natured responses and, in turn, asked questions about the accuracy of the English he was using in his posts. Thorne (2008b) describes this encounter as a multilateral flow of semiosis, mediated by two Internet communication tools, which enabled just-in-time access to linguistic resources that helped the relationship move forward. The primary language used was English, but three languages (including one instance of a Latin aphorism) were used in total. The transcript illustrated a number of positive assets for language learning, such as natural and unscripted interaction, reciprocal alterations in expert status, explicit self- and other-correction at the level of linguistic form, extensive repair sequences, development of a positive affective bond, and exhibited motivation by both parties for learning the other's language. In a follow-up interview to this experience, the American gamer mentioned a strong interest in studying Russian, in part to improve his gaming experience with Russian speakers. The American, a student at a university in the US, also reported that another committed gamer he knew had enrolled in university Chinese courses in order to be able to participate more fully in game play with Chinese nationals (Thorne, 2008b).

5.2. Unsolicited reports of language learning by gamers

23 An example of the relationship between gaming and language learning was recently (2011) published in *Wow Insider*, a popular blog covering *WoW* related news and human interest stories. The report in question described the case of a Romanian student of languages who, while studying abroad in Korea, used *WoW* as a tool for entree into Korean language and culture. She joined a guild, played in Internet gaming cafés, and used her prior expertise as a gamer to socially integrate with Korean age-peers. These reports suggest that for some students, the motives for foreign language study may reasonably be speculated to include a desire to participate in MMO-based or other digitally mediated plurilingual communities, or reciprocally, their prior experience as a gamer may provide shared or sharable ground with speakers of languages that they are interested in learning.

24 A second example, discussed at greater length in another publication (see Thorne, 2010), occurred during the summer of 2009 on the Internet forum site *games.com*. A gamer posted the following discussion topic: "Does WoW [*World of Warcraft*] help you learn a foreign language?". The author of this query provided the following discussion prompt [no corrections or alterations were made, save reduction in length].

> Living in Europe and playing WoW has one major perk over the US, thousands of players from a dozen countries get to play together. … For example, my guild's Assistant GM is French and he effectively learnt English by playing WoW.
> When I joined my current guild I suddenly found out about this hidden multi-cultural and multi-lingual side to the game and as a result three of my best in-game friends are from Norway, Russia and the Netherlands. All have fantastic English skills but it's still common for them to go back to their native languages in group chat or over voice.
> So I wonder, readers, do you regularly play with people from around the world? Have you learnt another language or improved your linguistic skills using the game? Do you play on a realm which doesn't speak your mother tongue? … Has it inspired you to take up learning a second or third language?

25 Within approximately 24 hours, players located primarily in Europe and North and South America had contributed 95 responses to this forum. The comments were decidedly mixed, with numerous posters emphasizing the non-standard spelling and grammar that is common to almost all forms of synchronous chat. However, the majority of contributors stated that despite the designated language of specific *WoW* servers (English, French, German, Spanish, etc.), they encountered two or more languages on a regular basis. For those playing regularly with international partners, the reported outcome was frequent opportunities for engagement in multiple languages that resulted in the naturalistic acquisition of a second or third language. Below are five brief excerpts from the forum, in unedited form save for reduction in length, that illustrate the plurilingual and intercultural opportunities for learning or maintaining additional languages from players' perspectives.

> Excerpt 1: Although I've learned English -I am Turkish btw- at school I was far away from speaking it. I've been playing WoW for the last 2.5 years and speaking with my buddies in-game has helped me a lot in speaking English fluently. I was reluctant at first on vent [a voice communication tool used by WoW players] but as time's passed I've realised how easy it is to speak with people whose mother language is not English mostly. Having people from many countries wipes away the fear of looking really silly when trying to pronounce correctly ;)
>
> Excerpt 2: Well, being Russian playing on an English realm I have learned English. From nearly zero level to 108 out of 120 points in TOEFL test.
>
> Excerpt 3: I live in Belgium and I play most of the time on french realms (that's my mother tongue) but sometimes I go on an alt on a german realm. I love this language but I don't have other ways to practice it … I master their language more or less and that can be very funny to go through a dungeon [a 5 person team event in WoW] when the 4 other members are talkative (that's a good context to make you write and understand faster).

> Excerpt 4: I've been learning Italian for about 4 years and once I finished uni, it became quite hard to meet Italians here in London … Luckily, I found an active [Italian speaking] guild … I was in that guild for a few months and communicated entirely in Italian. It really helped me to become more fluent.

> Excerpt 5: YES! My little brother learned his English through WoW. We are from Denmark and play on English EU Servers. He is turning 12 soon, and about 1,5 years ago he got his first subscription for Christmas. At first he could not understand a thing, so I had to sit with him while he played to translate everything (that's how I got hooked on WoW), then I made him a small list with common words etc. Now 1,5 years later he can play and communicate without a problem - and he likes to speak English IRL [*in real life*] just for fun. (I myself learned a lot of new words) Who said that you don't learn anything through games? =)

26 Many of the additional posted comments reinforce the themes represented in these five excerpts, namely that participation in *WoW* game play contributed to overall fluency, provided access to world Englishes and speakers of foreign languages that players wanted to learn, and even that *WoW* served as a good introductory environment for primary school aged children to learn English. Of course, it is important to note that these comments are self-assessments and hence need to be viewed with all the limitations associated with self-reporting. But the context – speaking to an audience of other gamers and not to a researcher carrying out formal interviews – also carries with it a certain unguarded and unmotivated tone that suggests the possibility of veracity. This is especially the case since a number of respondents posted that they learned only substandard forms of written and spoken language. Here is one representative example that critiques the idea of language learning from game play, but which also makes evident the possibility of learning informal (and in gaming settings, appropriately informal) genres of communication through situated language use in MMOs.

> Excerpt 6: You cannot learn a foreign language from a game. …The biggest challenge of any language is grammar, and (especially for English speakers) tenses, moods and cases. None of these can be learned by memorizing phrases like 'jeg er engelsk' [*I am English*] etc. You can augment your knowledge, yes, and if you are already aware of the grammar then WoW is an excellent way to extend your vocab (especially in casual speech) but to suggest that merely playing with Europeans is a guaranteed way to pick up a foreign language is both misleading and insulting to those of us who have put a lot of effort into doing so.

27 On the positive side, the ostensibly critical author of excerpt six acknowledges useful opportunities for "casual" language use and vocabulary development. Otherwise, this comment correctly observes that formal accuracy is in no way officially supported by the game environment nor by most player communities in any structured way. The goal in MMO settings is to successfully and enjoyably coordinate complex, multiparty collaboration, most of which is done using interactive textual or voice communication. Arguably, of course, informal and Internet/gaming-specific genres of language serve as salient markers of insider status in many online settings. Put another way, realizations of conventional grammatical accuracy may not be pragmatically appropriate in commercial MMO play, though this depends very much on heterogeneous local speech community norms. It is also the case, and a potential limitation to the transferability of "gamer language" to other contexts, that gamers often use a specialized lexicon (for examples, see Steinkuehler, 2008; see also Blommaert, 2011). Similar to other recreational and professional contexts, however, participation in shared purpose activity generates attendant opportunities for many kinds of more general social discourse, from interpersonal and social conversations with strangers to serious friendships and romantic bonds, and these other social functions are often expressed in more general and transferable genres of communication (e.g., Peña & Hancock 2006; Taylor 2006; Thorne 2008b).

6. Elicited (questionnaire) accounts of player experience in *World of Warcraft*

6.1. Bi-national questionnaire of active *WoW* players

28 In order to contribute to an empirically based assessment of the quotidian practices and experiences of *WoW* gamers, in the Spring of 2011, the authors of this article created a questionnaire with the aim of getting a clearer picture of how and/or if *WoW* players come into contact with multiple languages and how and with whom they play the game. The questionnaire was targeted toward Dutch players living in the Netherlands and American players living in the United States in order to gain an international perspective of *WoW* gaming experience as it relates to language use and learning. The questionnaire was distributed through various social networks, emailed directly to Dutch and American players known by the authors, and posted to online *WoW* community websites with the encouragement for initial respondents to redistribute the questionnaire to other players.

29 Dutch and English versions of the questionnaire were made available and there were an equal number of Dutch (N=32, 16 females, 16 males) and American (N=32, 11 females, 21 males) respondents. The Dutch and American groups were equally experienced in playing MMOs. On a scale of 1-5 for experience, the Dutch had an average score of 4.3 (SD=.99) and the American participants an average score of 4.6 (SD=.71). An independent samples t-test showed no significant difference between the two groups ($t(62)=-1.3$; $p>.05$). In both groups, most participants had been playing for more than 3 years, between 1 and 4 times a week, for an average of 3 hours at a time.

30 The questionnaire consisted of 40 questions[1] covering demographics and background (e.g., age, gender, education, nationality), frequency of play, exposure to and use of different languages, use of external websites and resources, the nature of their specific *WoW* experience and play preferences (e.g., official language realm, membership of guilds, the balance of solo to collaborative play), patterns of socializing and communication, and preferred communication tools (see Fischer, 2011, for details). These topics were then further explored through follow-up interviews with ten self-selected volunteer individuals who offered to talk with us further. Only a subset of themes will be addressed here, namely players' reported exposure to languages, their preference for various communication tools, what they liked most about the game, and their use of strategy and information websites that are external to the game.

31 The player responses regarding the use of external websites were used to identify and inform the selection of texts that were subsequently analysed for their linguistic complexity (discussed in section 7, below). This primarily descriptive research addresses the need for empirical investigation of the linguistic quality of texts present in online commercially available games and aims to finely characterize the linguistic complexity of game-presented texts (or "quest texts") as well as game-external informational and communicative resources that are widely used by players.

6.2. Exposure to languages and language use

32 All of the Dutch participants speak Dutch as their L1 and English as their L2, and 93% indicated that they speak English at an advanced level. Additionally, German (75%) and French (53%) were also spoken by many of the Dutch participants. All but one of the Americans reported speaking English as an L1, 40% reported speaking some Spanish as an L2, and single individuals indicated some competence in nine other languages.

33 The Dutch participants play on European realms (i.e., servers) and the American group on North American realms. On the European realms, the *WoW* user interface is available in multiple languages: English, German, French, Spanish and Russian, whereas on the North American realms, the user interface options are restricted to English or Spanish. In both groups, all participants reported that the official language of their realm was English.

34 The Dutch participants reported encountering many languages other than English, and that this happened with great frequency. The main languages that were mentioned by the Dutch participants included Dutch, Swedish, Italian, German, Norwegian, Finnish, Danish, French, Russian, Polish, Greek, Spanish, Turkish, Portuguese, Bulgarian and Croatian. Only languages that were mentioned in the survey and/or interviews by more than one player have been noted in this list. Americans reported encountering fewer non-English languages and with much less frequency than their Dutch counterparts. A list of the main languages that were mentioned by the American participants include Spanish, French, German, Portuguese, and "Internet" linguistic varieties, sometimes called "l33t speak", which comprise an alpha-numeric "supervernacular" (see Blommaert, 2011) that is widely used in a variety of mobile phone as well as Internet-mediated speech communities. Multiple American participants answered "none" to the question of encountering non-English languages.

35 We also asked the participants which languages they used while playing the game. All Dutch participants used their L2 of English, 78% reported also using Dutch, and two Dutch players (6.3%) reported using Swedish, while regular use of additional languages was reported by only single participants (see Table 1, below). The majority of the American participants used English only, though three participants also reported using Spanish. Table 1, below, lists languages that were actively used by the questionnaire respondents.

Table – Overview of foreign languages used in *WoW* by the Dutch and American participants. Note: Several participants gave more than one answer to this question, thus the combined percentages reported here exceed 100.

Dutch participants			**American participants**		
Language	**Number**	**Percentage**	**Language**	**Number**	**Percentage**
English	32	100%	English	32	100%
Dutch	25	78%	Spanish	3	9.4%
Swedish	2	6.3%	French	1	3.1%
German	1	3.1%	Internet/l33t	1	3.1%
Norwegian	1	3.1%			
French	1	3.1%			
Portuguese	1	3.1%			

36 The English-specified European realms include players of many different nationalities. We earlier noted the many reports of individuals choosing to play *WoW* on various L2 realms in order to learn other languages (discussed above, see also Thorne, 2008, 2010); however, none of our participants reported playing *WoW* explicitly for this purpose. The expectation that on a European realm communication will occur in numerous languages is, for the majority of the Dutch participants in this study, largely reduced to the use of only two languages – English and Dutch.

6.3. Communication tools

37 As for communication tools and methods by which players communicate with one another, the results demonstrate that a similar set of communication instruments are used frequently and by almost everyone. Of the Dutch participants, 72% use some type of voice over Internet Protocol (VOIP) tool for interactive voice communication (*Ventrillo* or *Teamspeak* were mentioned most frequently), and 65% of the Dutch participants use the in-game text chat function. Of the Americans, 84% reported using VOIP, again mostly Ventrillo or Teamspeak, and 93% used the in-game chat function. In a surprising finding, 15.6% of the Dutch sample reported using no communication

tools at all, but rather played co-present with other players and thus used face-to-face voice communication instead. These five reports of co-present voice communication came from players who are in intimate relationships and who play *WoW* with their partners. Among the American sample, there was only one report of co-present play.

6.4. Social engagement, playing together and guild membership

38 In response to what they like most about *WoW*, both the Dutch and the American players emphasized playing together with other people. There were a variety of responses to this question, but the social dimension of game play was the most highly ranked. In the Dutch group, 78% selected playing with others as their favorite aspect of the game, and in the American group, 75%. To illustrate, one of the Dutch participants reported their favorite *WoW* activity as:

> discovering and conquering the tremendous worlds and dungeons (together with people you already know) [translated from Dutch].

39 An American participant said:

> I like the interaction with friends. My spouse and I are in a guild where everyone knows someone else in real life, stemming from a small group of college friends - we use the game as an excuse to hang out from a wide variety of post-graduation locations.

40 Respondents from both the Netherlands and the United States often mentioned playing with others whom they also know outside of the game. See Table 2 for an overview of the various answers that were given by the participants.

Table – What participants like most about playing. Note: Several participants gave more than one answer to this question, thus the combined percentages exceed 100%.

	Dutch participants		American participants	
What do you like most about *WoW*?	**Number**	**Percentage**	**Number**	**Percentage**
Social aspect, playing together	25	78%	24	75%
Diversity/variation in the game	7	21.8%	7	21.8%
Levelling up	3	9.4%	3	9.4%
Improving your character	3	9.4%	–	–
Exploration	–	–	5	15.6%
Acquiring new gear	2	6.3%	–	–
The challenge of the game	2	6.3%	1	3.1%
Arenas	2	6.3%	–	–
Raiding	2	6.3%	10	31.3%
Questing	1	3.1%	5	15.6%

41 With evidence that *WoW* is a social game where cooperation and interaction occurs and is expected, we asked the participants whether they usually played in the company of others or alone. 81% of the Dutch participants answered they preferred playing together and only 6% preferred playing alone, while 13% preferred a mixture of solo and group play. However, only 69% of the American participants indicated they preferred playing together, 25% preferred playing alone, and 6% preferred a mixture. See Figure 1 and Figure 2 for an overview.

Figure 1 – Playing *WoW* with others, alone, or in a mix of both conditions (Dutch participants).

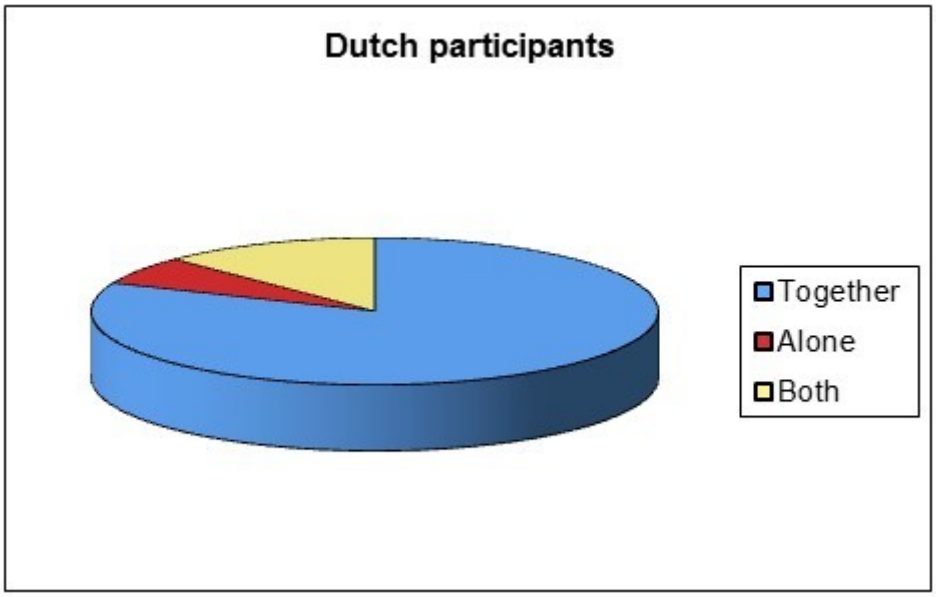
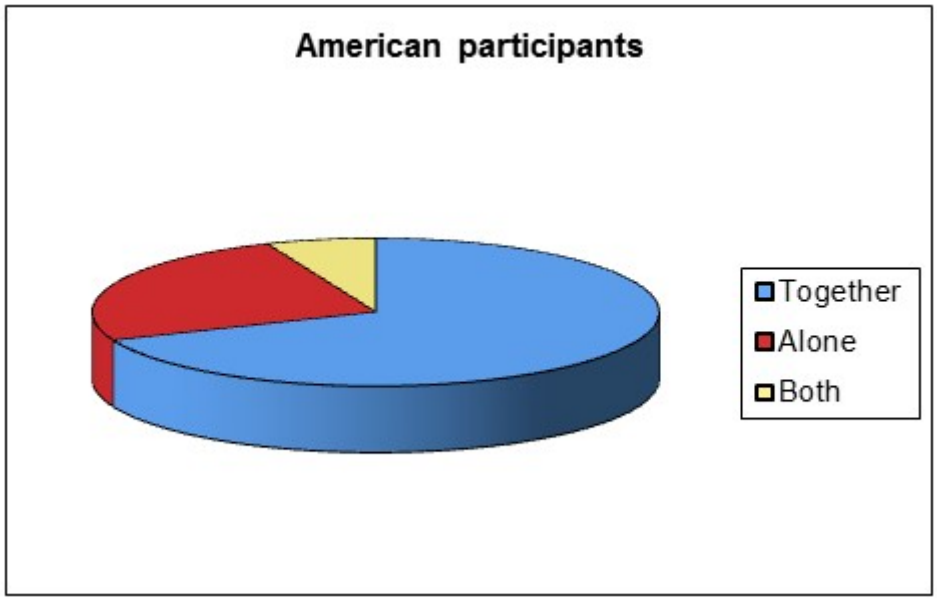


Figure 2 – Playing *WoW* with others, alone, or in a mix of both conditions (American participants).



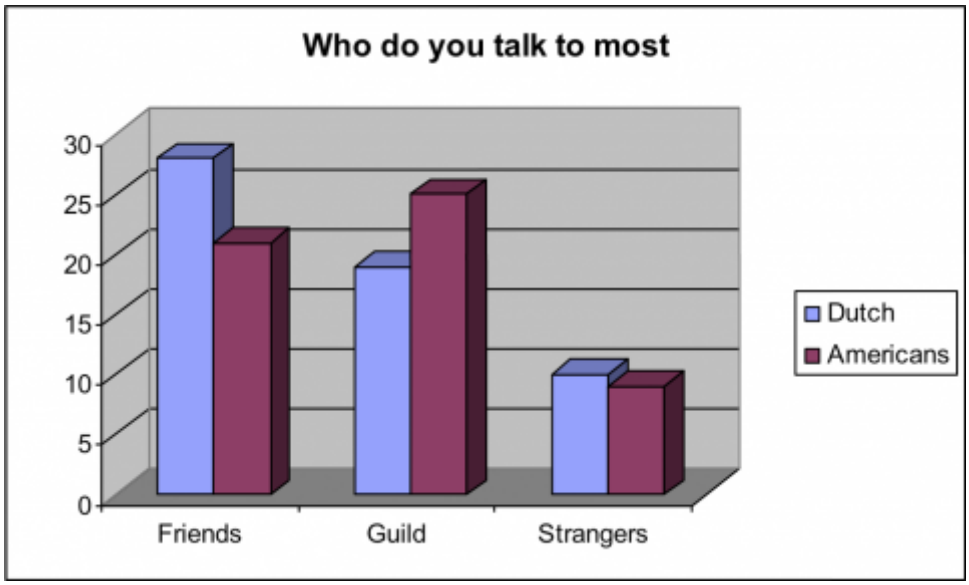
42 Supporting group play, a significant structural feature of *WoW*, as well as other MMOs, is the presence of player organized "guilds." 78% of the Dutch participants and 96% of the Americans reported being a member of a guild. Even though both of these numbers are very high, the American participants appear to be considerably more guild oriented than the Dutch. This might indicate that some of the Dutch participants prefer to play the game in more loosely structured groups. Of the Dutch participants who are in a guild, 72% are in an English speaking guild and 28% are members of a guild where Dutch is the main language or where a mixture of Dutch and English is spoken. Of the American participants, all reported membership in a primarily English-speaking guild, with 22.6% reporting the visibility of French, mainly attributed to the presence of Canadian guild members.

43 We also asked players who they most often communicated with in the game (see Figure 3). Dutch players reported interacting primarily with friends and guild members (87.5%), but approximately 1/3 (31%) reported also talking regularly to players they did not know. Similarly, 78% of the American participants reported that they mainly talked to friends and guild members, with 28% reporting regular communication with players previously unknown to them. For the Dutch participants, most communication with friends occurred in Dutch, whereas most communication on guild communication

channels (visible to all members) and with strangers was reportedly carried out in English.

44 Similar to the Dutch, the American participants also preferred talking to people they knew and virtually all of their communication was reported to occur in their L1 of English, with three American players reporting the use of Spanish and only one the use of French. This is not surprising given that, contrary to the Dutch participants, the designated languages of *WoW* realms are restricted to English and Spanish on North American realms. A practical implication of this finding, however, is that North American residents would need to subscribe to the European or other language-designated *WoW* realms (requiring a different software installation) if they wish to play with large populations speaking languages other than English and Spanish.

Figure 3 – Who players communicate with in *WoW*: Friends, guild mates, strangers.



6.5. Use of game-external websites

45 For both the Dutch and American groups, the questionnaire and interview data indicate that game-external sites to do with *WoW* are used often and by all respondents. *WoW* players look up information on the background story of the game, how to complete certain assignments, how to optimise their characters, for assistance with strategy, and much more. Interestingly, all questionnaire respondents mentioned viewing the external sites in English, despite the fact that *WoW* strategy and information websites are available in a large number of additional languages. All of this study's participants reported that they use external websites before, during, and/or after the gaming session. For this reason, we propose that external websites are an integral part of the *WoW* gaming experience. This observation is borne out in the following transcribed portions of the interviews (note that all names are pseudonyms generated using the name generating function within *WoW*).

> Moonpunisher:
>
> I use quite a few external websites, and I have all of them open while I am playing the game, so that when I need to I can immediately look stuff up [translated from Dutch].
>
> Glakela:
>
> I never play full screen, I always play in a way so that I can just reach my desktop and can immediately access my browser. I will just put myself in a safe town, so nothing can happen and then I will calmly start reading and looking up things [translated from Dutch].

46 Based on the more in-depth follow-up interviews, it is clear that using external websites is not only a preparatory or post-play evaluative process, but also part of the in-process gaming experience. In this sense, regular *WoW* play involves the use of a complex and articulated set of semiotic resources and tiered discourses that include the texts and interactions of the game itself as well as game-external websites, topical blogs and community forum sites.

7. Linguistic complexity of game-presented and game-external semiotic resources

47 In the prior sections, we described player reports of the languages they are exposed to or use, the communication tools they use while playing, the highly social nature of the game play, and what game external semiotic resources they attend to and utilize with greatest frequency. The question asked here is, what is the linguistic nature of these texts? To our knowledge, a descriptive linguistic analysis of the high frequency text types that *WoW* players are exposed to has not been carried out. The following section briefly reports on prior research (Thorne, Fischer & Lu, in press) that assessed the linguistic complexity of (1) game-generated "quest" texts that guide player actions, and (2) the game-external texts that were designated by players as central to game play. All texts examined here were in English, with the presumption that this information would be relevant for L2 learners of English and potentially would also be generalizable to analogous texts in other languages.

48 Linguistic complexity can be broadly defined as the range and sophistication of language forms and structures (e.g., Ortega, 2003). Thorne *et al.* (in press) assessed the linguistic complexity of multiple corpora of WoW-related texts using four measurement types: (1) readability, (2) lexical sophistication, (3) lexical diversity, and (4) syntactic complexity (see Lu, 2009). Each of these measures comes with certain limitations, particularly as a result of conflating sentential variability to mean scores, but each also provides a useful vantage point from which to conceptualize and analyse complexity. A synoptic account of the findings is that representative samples of quest texts and external websites, analysed at the level of individual sentences, reveal mean average complexity measures approximate to a secondary school reading level suitable for students aged 13-17 years. Closer analysis, however, revealed a polarized distribution of sentences that clustered in two areas – those that are short and syntactically simple, and those that are long and highly complex. The graphical representation of the distribution of sentences for each corpus type showed a right skewed (or complexity weighted) "U" pattern. This indicates that there is considerable variability in sentence complexity levels within the texts, with the most complex levels of sentences occurring with greatest frequency. This secondary distributional analysis illustrated that in quotidian game play, gamers encounter a high proportion of lexically, syntactically and structurally complex sentences (interested parties are encouraged to see Thorne *et al.*, in press, which describes the methodologies, corpora examined and findings in exhaustive detail).

8. Discussion

49 Section 2 of this article reviewed the contradictory research and assessment regarding sociable media. To summarize the primary problematic, conventional forms of literacy, typified by the hallmark practice of independent reading and writing of linear texts, is argued to stand in sharp contrast to many information and communication practices associated with new media. As sections 6 and 7 attempted to illustrate, online gaming environments such as *WoW* form semiotic ecologies that include both exposure to complex written language and real-time communicative

engagement in event driven scenarios. Many critiques of sociable media focus on their hyper-social and often frenetic pacing as potential problems. It is relevant to note, however, that interactive and socially situated engagement, whether in face-to-face settings or Internet-mediated environments, constitute the essence of human communication. The conversation analyst Emanuel Schegloff (1996: 54) describes everyday forms of face-to-face conversation as the "primordial environment for the ontogenetic and phylogenetic use and development of natural language". The linguist Stephen Levinson (1995: 253) makes a related point when he describes the "brief action-response intervals and very short sequential patterns" (a concise descriptor of much social media use) that form the interaction tempo to which human memory and attention have become phylogenetically attuned. In reference to general language learning processes and purposes, we call for a balanced approach that acknowledges the importance of both conventional literacy expertise and the development of dispositions that enable semiotic agility (see Prior, 2010) in sociable media environments. Conventional notions of literacy represent a specific and culturally unique type of cognitive-communicative-interpretive practice, one that remains critically important to success in many modern workplaces, not to mention the many aesthetic pleasures it makes possible. For their part, sociable media, while diverse in genre and purpose, can arguably be represented as supporting real-time "context of situation" communication (e.g., Malinowsky, 1923), such as phatically oriented "pings" (short messages used to establish presence and maintain social relationships), just-in-time bricolage assemblages of previously distributed bits of information, recipient designed communicative behaviour (e.g., Garfinkel, 1967), and often pragmatically complex interpersonal engagement.

50 In application to language use and development, participation in differing culturally organized settings and "commognitive" practices, the latter being Sfard's (2008: 83) attempt to unify "cognitive" and "communicative" processes as aspects of a shared phenomenon, needs to be aligned with developmental goals. If the developmental goal is enhancing the capacity to deeply interpret linear texts – read linear texts. If the developmental goal is to enhance the capacity to build and manage interpersonal relationships in sociable media environments – this should be the focus. The argument we have developed here is that qualitative shifts in contexts, purposes and genres of communication associated with new media necessitate a discerning-and-inclusive proactive vision of educational practice, and one that is responsive to the emerging contexts of first and additional language learning and use.

51 Sections 5 and 6 examined player reports of game play, game-related social interaction, and the use of communication tools and external websites. In player-to-player online discussion forums, posters described numerous language learning experiences and positive linguistic outcomes, often emphasizing the social dynamics of collaborative play and community formation (Thorne, 2011) as key elements. In the questionnaire research reported in section 6, the majority of players in both the Netherlands and the United States stated a preference for playing the game with others, often as part of a guild and/or with known acquaintances. Additionally, all respondents reported using external strategy and informational websites as an integral part of playing the game. In contrast to the unsolicited player accounts discussed in section 5, the questionnaire respondents reported less exposure to multiple languages and fewer realized opportunities for foreign language learning. This was especially the case for the American gamers.

52 In terms of the generalizability of the questionnaire findings, there are limitations to this research, namely the modest subject pool of 64 participants restricted to two geographical regions – the Netherlands and the United States. Additionally, the respondents, on average, were highly skilled gamers whose experience may not represent that of novices. The applicability of the questionnaire results to other populations, therefore, should be understood as tentative. Finally, future research on language learning in multiplayer gaming environments should expand to include other MMOs and player populations, continue to explore real-time interaction during game play, and more formally assess the language proficiency outcomes associated with gaming and related sociable media activity.

53 While the second language acquisition literature is inclusive of widely divergent ontologies and findings, there is little disagreement about the need for exposure to the semiotic systems and signifying practices one wishes to learn. Further, numerous studies have indicated the importance of reading and quality of input for the acquisition of linguistic structures, vocabulary, and genre-specific text conventions (e.g., Ellis, 2002; Hyland, 2002; Nation, 2004; Pigada & Schmitt, 2006). Catalyzed by questions regarding the quality of the semiotic environment of online game worlds, section 7 described research that sought to finely describe player-designated high frequency texts using linguistic analysis. Game presented and game-external texts are central to game play in *World of Warcraft* and illustrate multiple genres, include a high proportion of complex structures, and show features of interactive and interpersonally engaged (e.g., 2nd person address) discourse (Thorne, Fischer & Lu, in press). Especially in combination with player-to-player communication, which was beyond the scope of this article to discuss, *WoW* would seem to present a diverse and linguistically complex environment for L2 learners of English. Our exploration of *WoW* realms in other (i.e., non-English) languages indicates that game play can be conducive to the learning of additional languages as well. This supposition is supported by the unsolicited player accounts that were described in section 5.

54 More broadly, research examining the cognitive content of strategy and game-play websites illustrates that it is rhetorically and logically complex. To take one example, Steinkuehler and Duncan (2008) have demonstrated that *WoW* discussion forums foster "scientific habits of mind". Analyses of nearly 2,000 *WoW*-related forum posts indicate that 86% of the entries displayed "social knowledge construction", 65% treated knowledge "as an open-ended process of evaluation and argument", more than half of the posts included evidence of systems based reasoning, and 10% showed scientifically precise model-based reasoning (Steinkuehler & Duncan, 2008: 539). Thus in addition to its relative linguistic complexity, the cognitive and reasoning content of game-external website resources exemplify scientifically oriented forms of play, all within the context of a high sociability environment.

9. Conclusion

55 *World of Warcraft* is a recreational MMO that was not designed for language learning. But then families, neighbourhoods, communities and workplaces, are not engineered environments for language learning either. This is to say that people have the potential to learn in many activity settings (though efficiency, economies of scale and developmental outcomes may differ). Formal schooling can be a powerful contributor to development, but so too can lived experiences such as those described as informal learning (Sawchuk, 2003), interaction in online gaming affinity spaces (Gee, 2005), and via language socialization in a wide range of sociable media environments (e.g., Reinhardt & Zander, 2011; Thorne, 2009; Thorne *et al.*, 2009). If a player wishes to use or learn an L2, the evidence reported here suggests that online gaming, as a form of sociable media, presents a rich and diverse semiotic and social ecology within which to do so. However, the amount of exposure to, and interaction in, additional languages will depend greatly on what the player wishes to do and to achieve in the game.

56 To revisit the essential message of Internet pioneer Tim Berners-Lee (1998), the Internet is less a technological fact than a social fact, and one that has been accompanied by the massive proliferation of communicative genres that are substantially different from pre-digital epistolary conventions (e.g., Crystal 2001; Danet & Herring, 2007; Jenkins, 2006; Lankshear & Knobel, 2006; Sykes, Oskoz & Thorne, 2008; Thorne & Black, 2007). The implication for language education is that Internet-mediated engagement is no longer a proxy activity or practice environment, but is itself the real thing – the medium through which we perform relevant social identities and through which we engage in a wide array of life activity. This suggests that mastery of conventional literacy and genre norms *as well as* emergent and evolving sociable media communicative and cognitive practices are each developmentally useful, and perhaps

also necessary, to achieve full participation in many educational, professional and recreational settings. Viewed from this functional perspective, constructed binary oppositions of canonical vs. new media literacies or extended linear texts vs. interactionally sequenced utterances are not particularly useful. An alternative formulation is to frame competent linguistically mediated performance as the capacity to skilfully navigate interpenetrating mediated and non-mediated communicative and cognitive practices that are enacted along continua such as formal and informal registers and monolingual or plurilingual semiotic choices.

57 In the modern era, sociable media constitute a primary set of lifeworld mediating modalities and thus warrant systematic inclusion among the explicit goals of L2 educational practice. A powerful rationale for this move, as described by digital cultures researcher danah boyd (2007: 155), is that "digital networks will never merely map the social, but inevitably develop their own dynamics through which they *become* the social".

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Notes

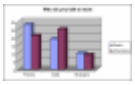
1 The English and Dutch language versions of the questionnaire can be found here:

English:https://spreadsheets.google.com/viewform?formkey=dFh3T0huUkwzUjFLMk9FWHY2elVjOXc6MA; Dutch: https://spreadsheets.google.com/viewform?formkey=dFR1YnZkVk1ZT21nRXRGQXRtWXVnTmc6MA

Table des illustrations

Titre	Figure 1 – Playing *WoW* with others, alone, or in a mix of both conditions (Dutch participants).
URL	http://journals.openedition.org/alsic/docannexe/image/2450/img-1.jpg
Fichier	image/jpeg, 20k

Titre	Figure 2 – Playing *WoW* with others, alone, or in a mix of both conditions (American participants).
URL	http://journals.openedition.org/alsic/docannexe/image/2450/img-2.jpg
Fichier	image/jpeg, 20k



Titre	Figure 3 – Who players communicate with in *WoW*: Friends, guild mates, strangers.
Légende	
URL	http://journals.openedition.org/alsic/docannexe/image/2450/img-3.png
Fichier	image/png, 214k

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